

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of

Huang.

Serial No.: 09/690,915

Filed: 10/17/2000

For: METHOD AND APPARATUS
FOR HIGH PERFORMANCE
LOW BIT-RATE CODING
OF UNVOICED SPEECH

Examiner: UNKNOWN

Group Art Unit: 2654

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LETTER TO OFFICIAL DRAFTSMAN
TRANSMITTING FORMAL DRAWINGS

Asst. Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

Enclosed for filing in the subject application are nine (9) sheets of formal drawings.

Respectfully submitted,

Dated: March 19, 2003

By: S. Hossain Beladi

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Registration No. 42,311

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231, on:

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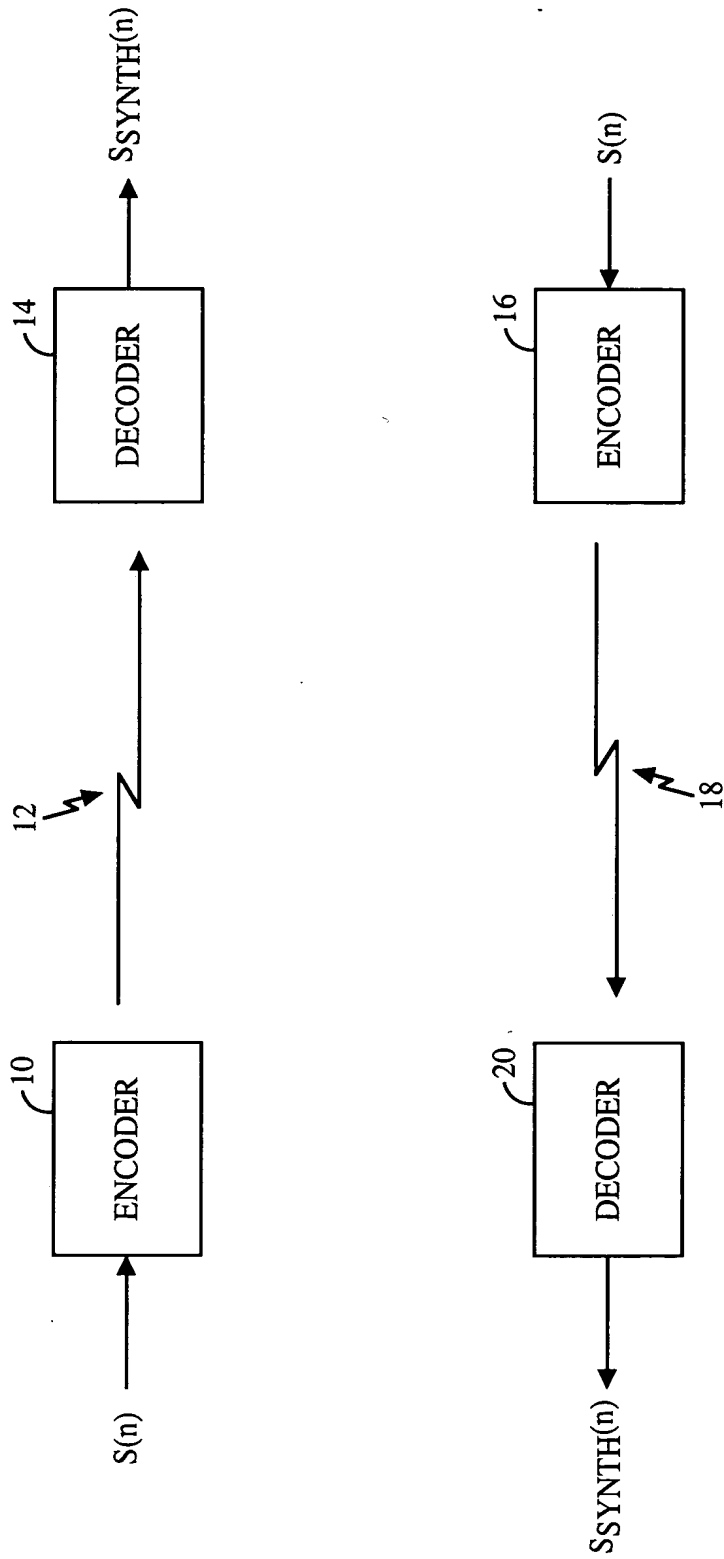


FIG. 1

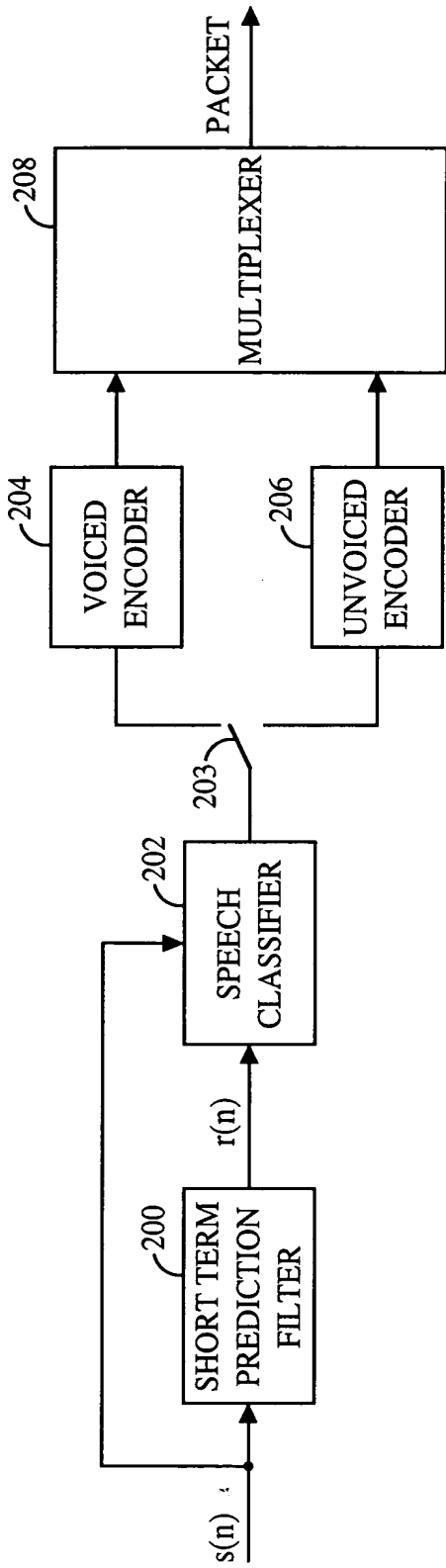


FIG. 2A

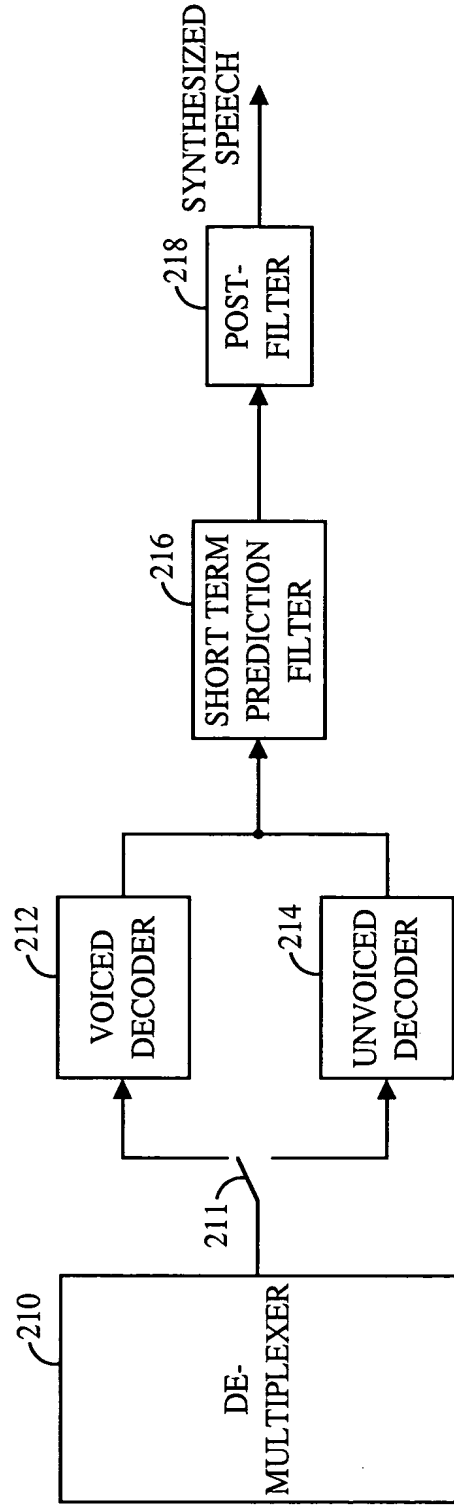


FIG. 2B

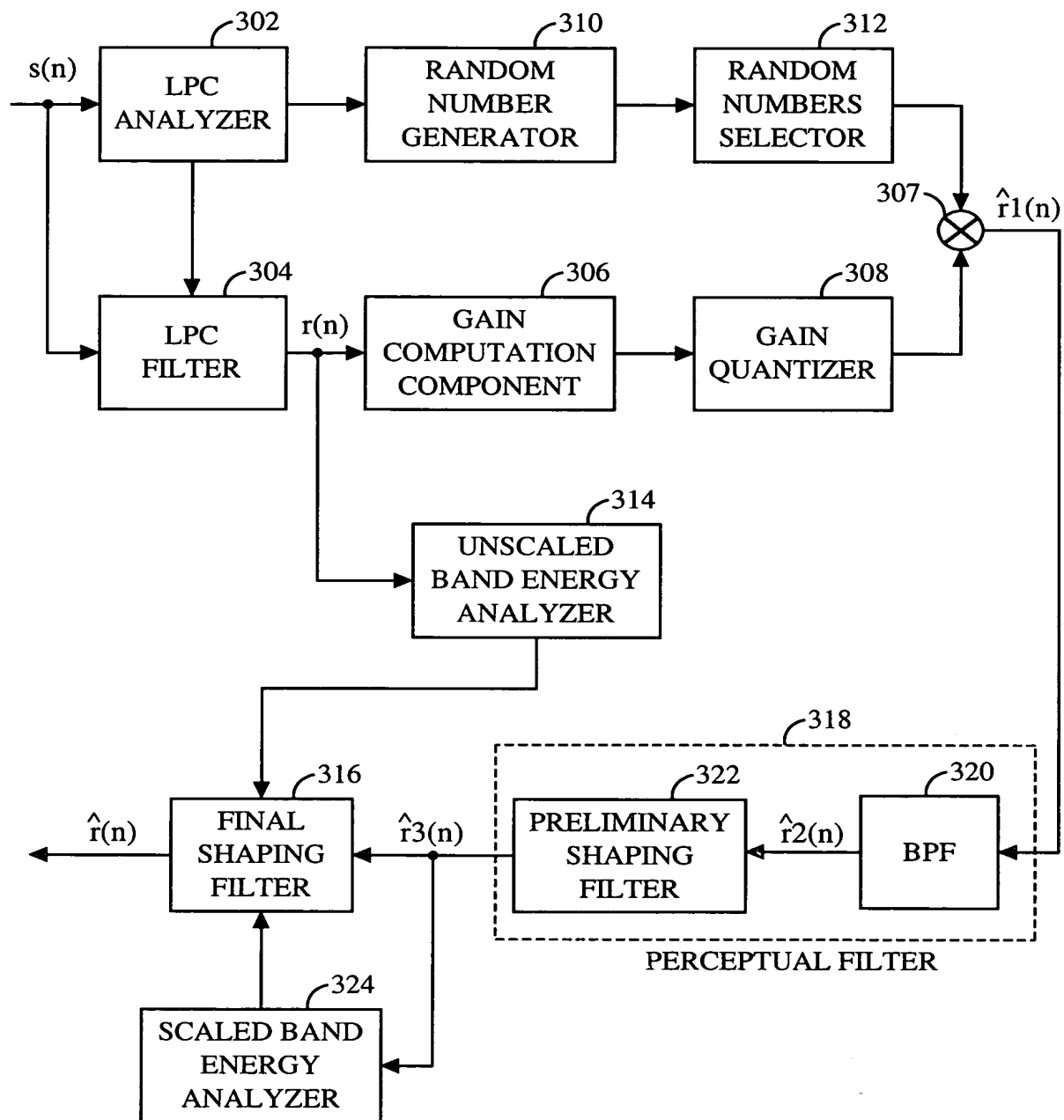


FIG. 3

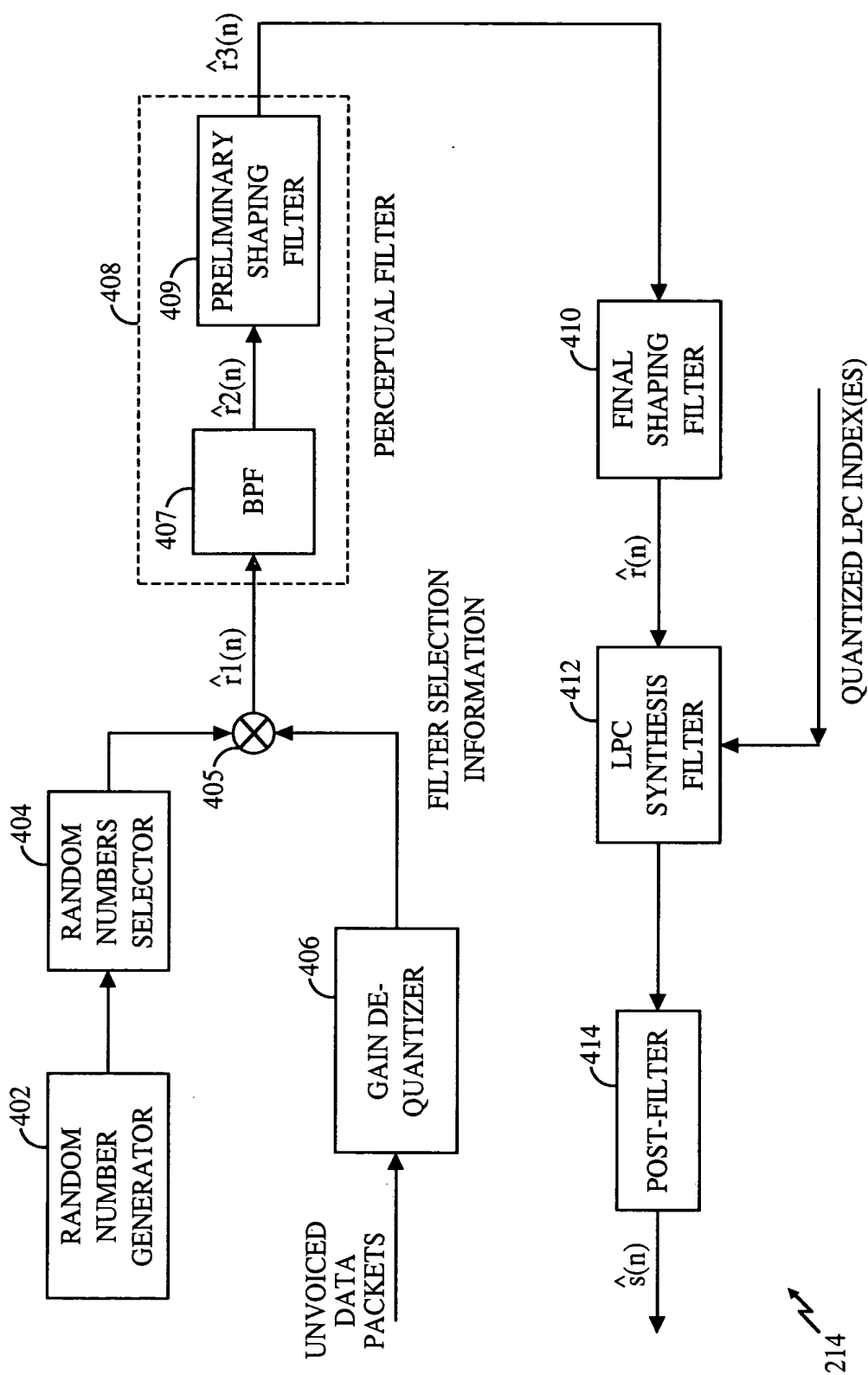


FIG. 4

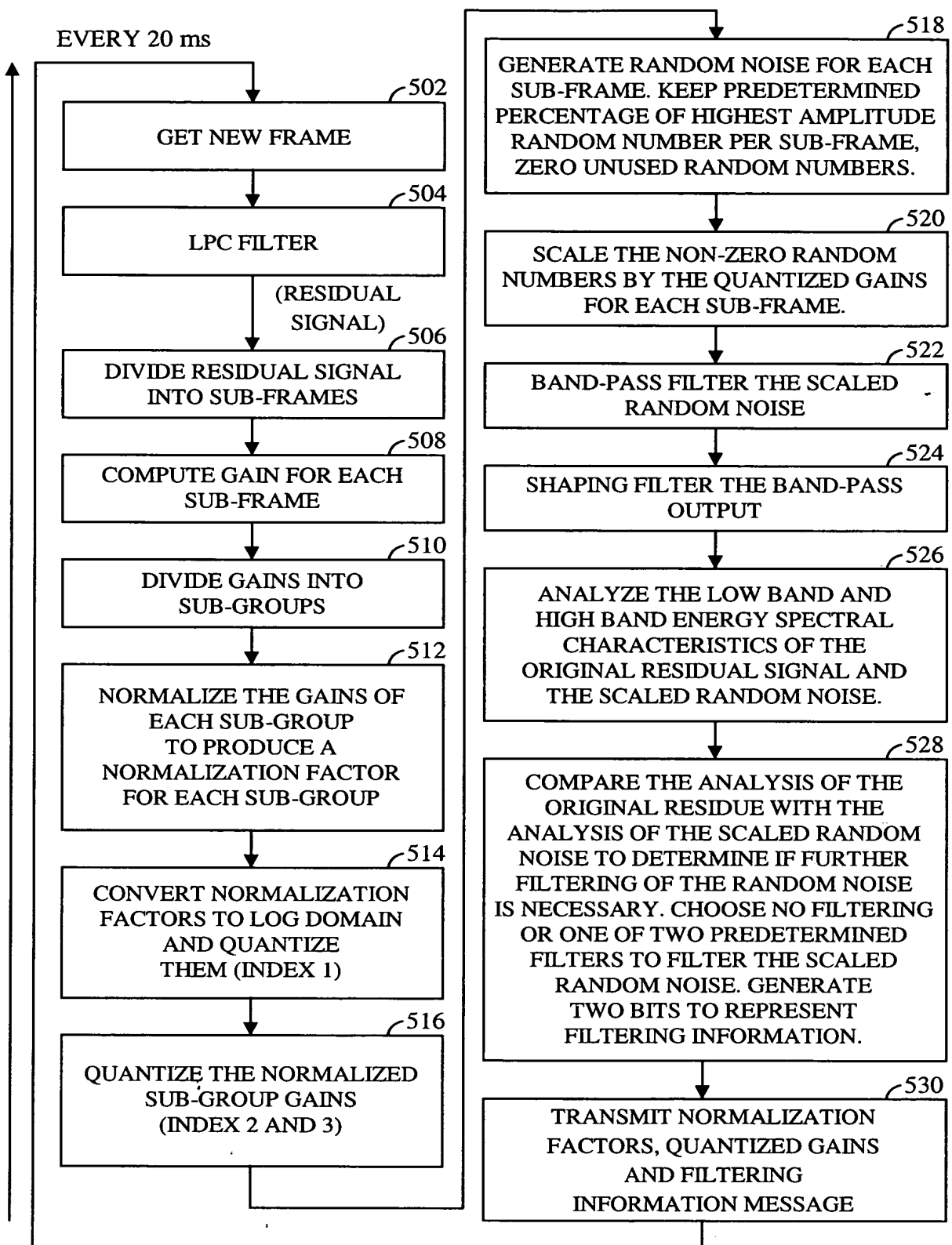


FIG. 5

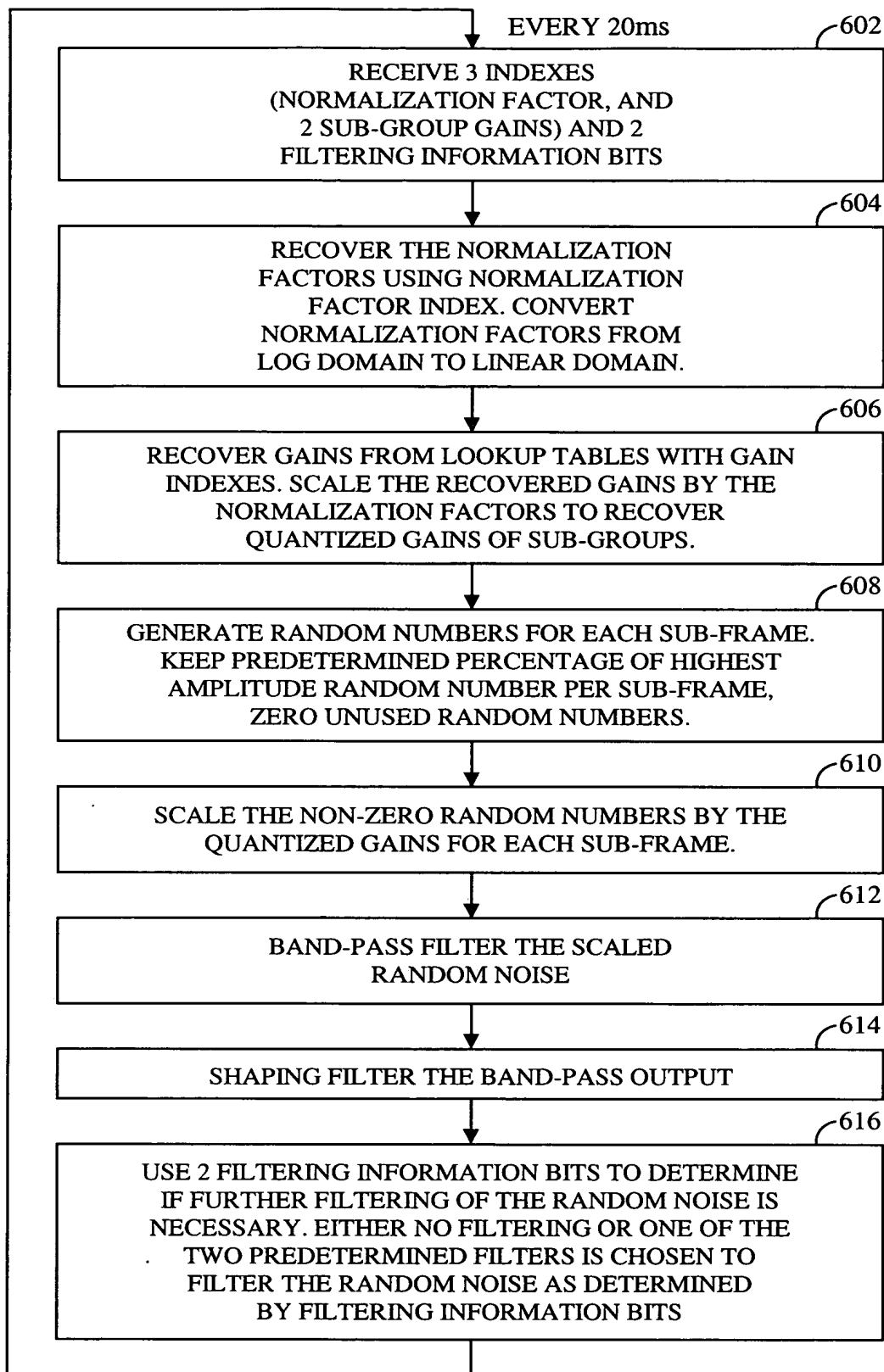


FIG. 6



LOW-PASS FILTER FREQUENCY RESPONSE
FOR BAND ENERGY ANALYSIS

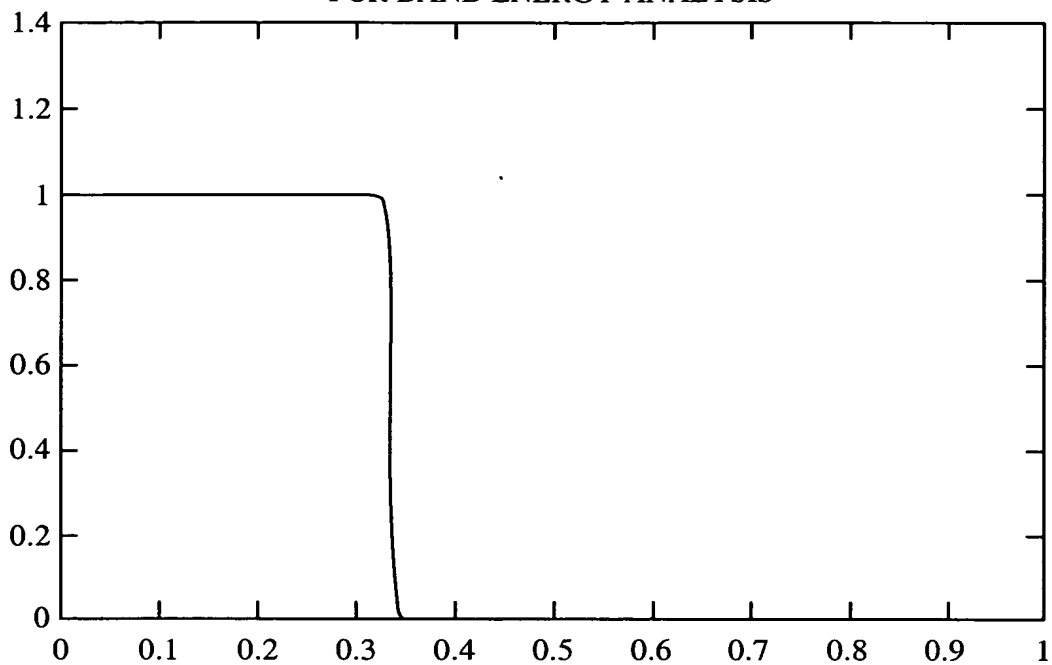


FIG. 7A

HIGH-PASS FILTER FREQUENCY RESPONSE
FOR BAND ENERGY ANALYSIS

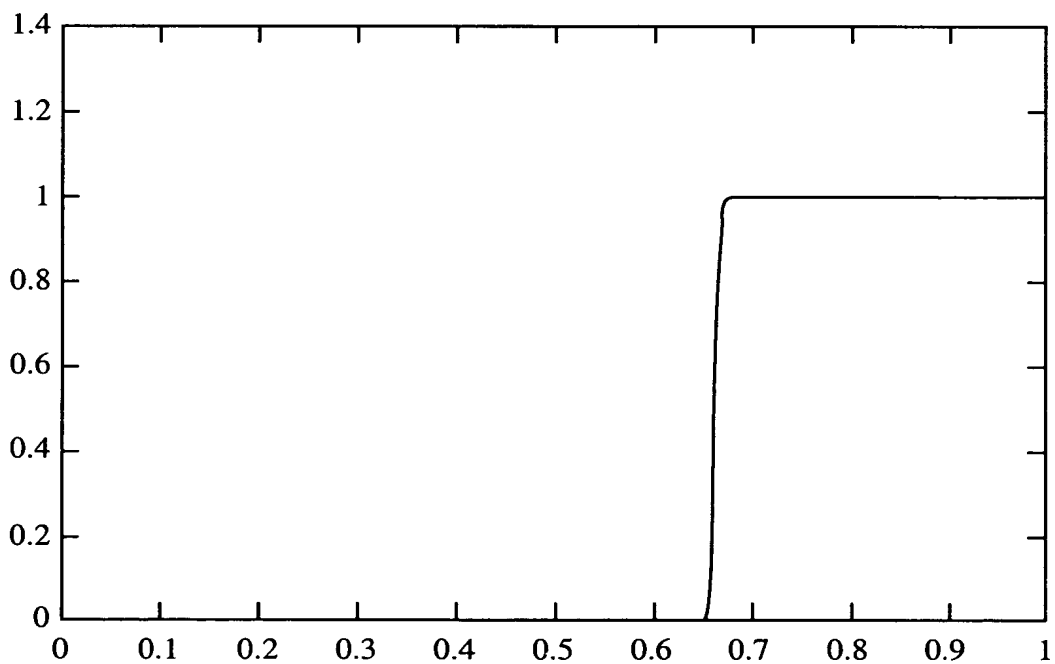
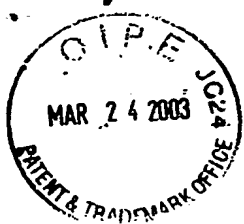


FIG. 7B



BAND-PASS FILTER FREQUENCY RESPONSE
FOR PERCEPTUAL FILTERING

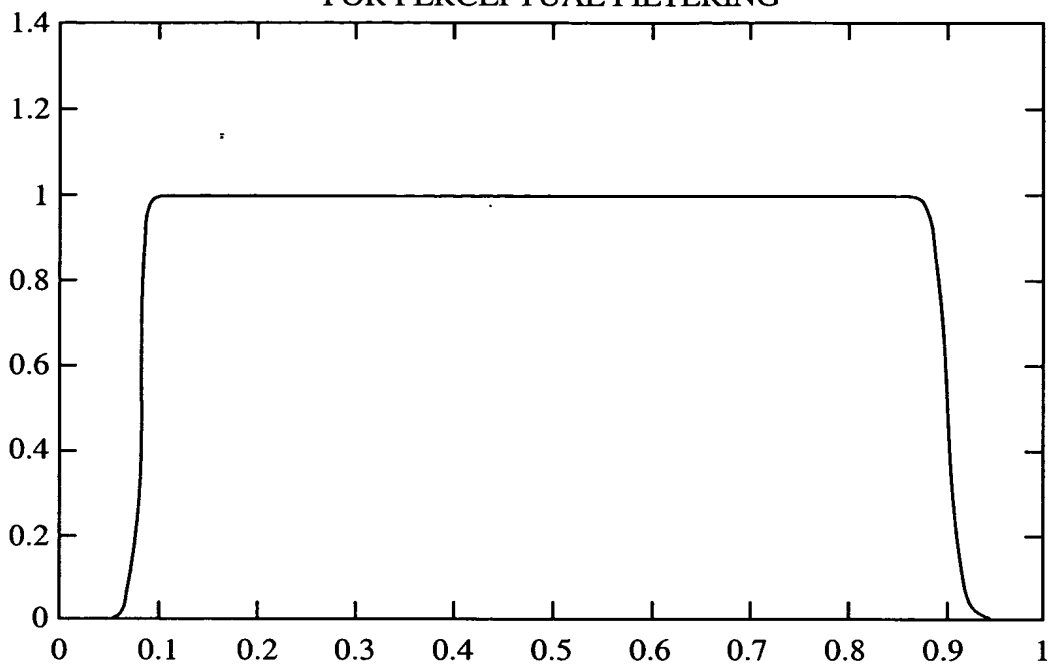


FIG. 8A

SHAPING FILTER 1 FREQUENCY RESPONSE
FOR PERCEPTUAL FILTERING

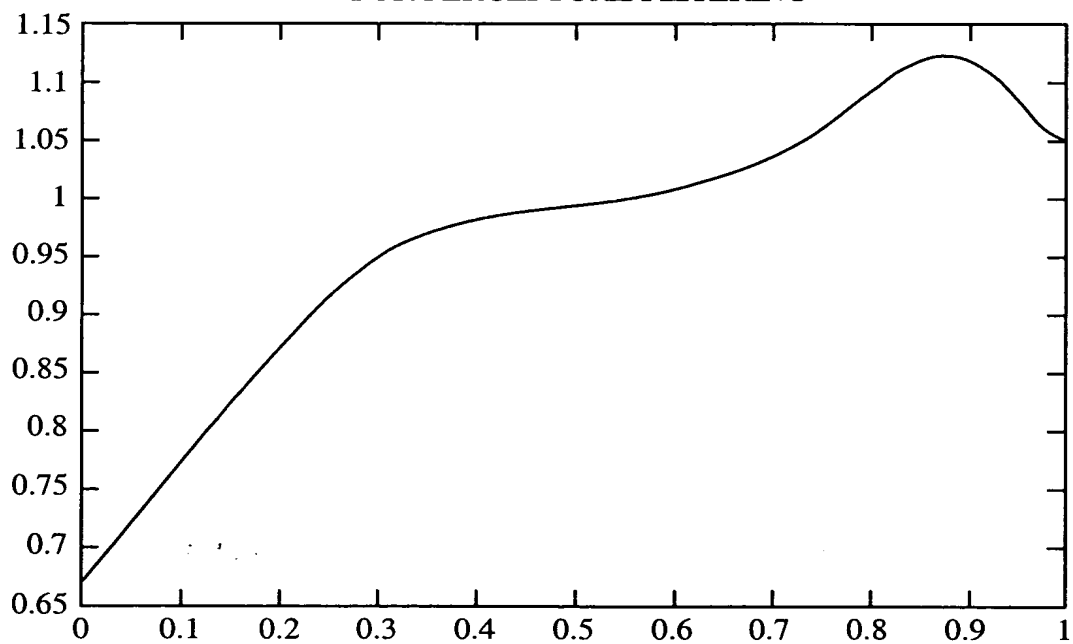


FIG. 8B



SHAPING FILTER 2 FREQUENCY RESPONSE
FOR PERCEPTUAL FILTERING

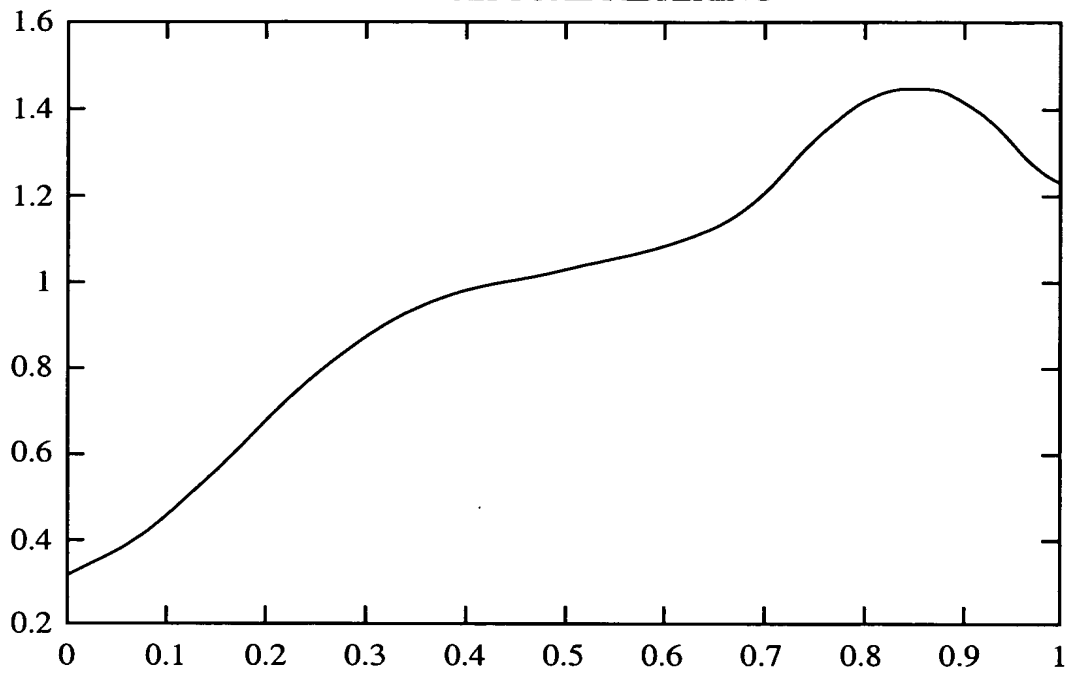


FIG. 8C

SHAPING FILTER 3 FREQUENCY RESPONSE
FOR PERCEPTUAL FILTERING

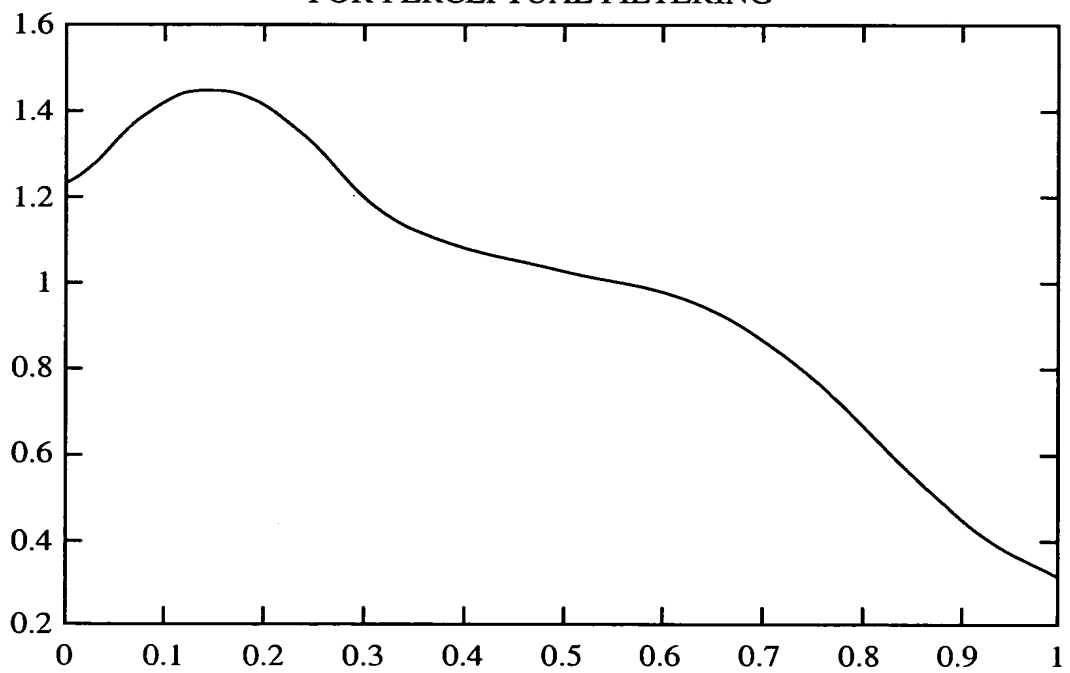


FIG. 8D